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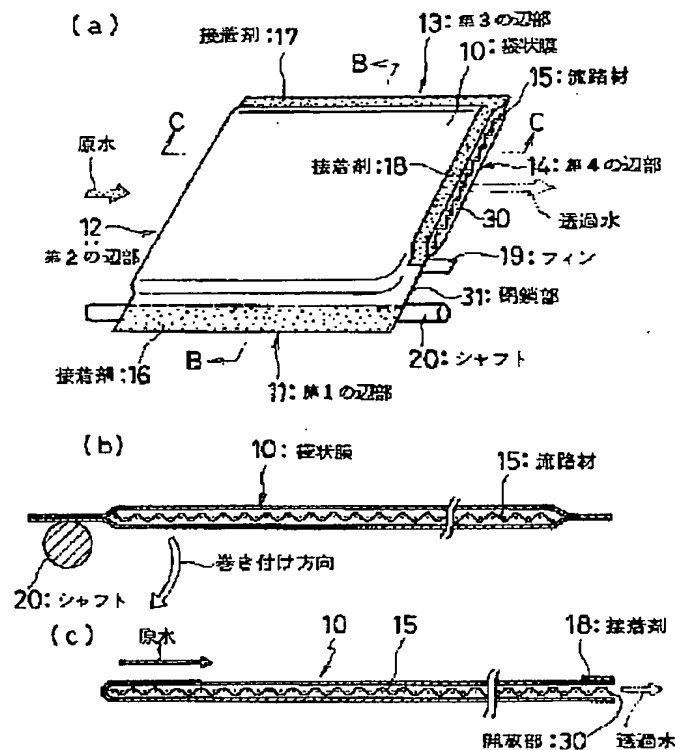
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TITLE : OPERATION OF MEMBRANE SEPARATOR



ABSTRACT : PROBLEM TO BE SOLVED: To decrease the frequency of normal backwashings, to shorten the time to stop the collection of permeated water due to backwashing and to increase the working efficiency by applying a simple backwashing to supply gas on the permeated water side for an extremely short time while supplying water during the filtration stage, stopping the supply of raw water and supplying a gas.

SOLUTION: When a spiral membrane module is backwashed, if a gas pressure is exerted on the permeated water passage in a bag-shaped membrane 10, the permeated water remaining in the membrane 10 flows into a raw water passage between the membranes 10, and water backwashing (a simple backwashing) is conducted. As a gas is successively supplied, the amt. of the remaining permeated water is decreased, and a mixture of the permeated water and gas flows backward, and gas-liq. mixture backwashing (normal backwashing) is performed. The pressure drop of the membrane is slightly decreased by the simple backwashing. Accordingly, by frequently applying 5-25 sec simple backwashing during the filtration stage between the 0.5-5 min normal backwashings, the pressure drop of the membrane is kept low for a long time, and the frequency of normal backwashings can be decreased.

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